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|  | **Activity Guide - Computing Innovations** |  |

**Innovation Research**

You will be assigned a topic in one of the following areas. You and your partner are to research the **latest innovations** in **computing hardware**. The goal here is to find the **most recent** innovative computing devices within your chosen topic. Keep an eye out in particular for devices that don’t *look* like what you might expect a computer to be.

**Topics (you will be assigned a topic)**

* **Wearable Technology** (eg. clothing, jewelry, or accessories with built-in computers)
* **Health and Safety** (eg. devices that treat disease, track your health, or protect users from danger)
* **Agriculture** (eg. technology to improve the effectiveness, sustainability, or efficiency of farming)
* **Manufacturing** (eg. advancements in rapid prototyping, industrial robotics, and the production of goods)
* **Art and Design** (eg. interactive art or public installations)
* **Smart Home** (eg. devices that allow you to interact with your thermostat, locks, or lights using computers)

**Researching your Topic**

With your given topic as guidance, go online to research **recent innovative computing devices** within that topic. Try to find a product that you think is both **innovative** (in that it’s attempting to solve a new problem, or an old problem in a new way) and personally **interesting**.

Use the space below to record notes about interesting products you find, patterns that you’re seeing, or problems within your chosen topic that people are trying to address.

**Research Notes *(this should be a list of things that you found & additional details as to why they are innovative or interesting!)***

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**An Innovative Solution**

Based on the research you and your partner did on the last page, select **one** of the devices you found to focus on. Answer the following questions for your chosen device. *You may need to head back online to gather more details about your chosen device.*

**1. What Problem Does it Solve?** *This is probably the main sales pitch of the product - why do the creators think this is useful?*

**2. What Is Innovative About It?** *What makes this device different or better than other solutions out there?*

**3. How Do You Interact With It?** *Focusing on the Input and Output elements of our model for a computer, how does this device take input from the user, and how does it display output? Try to be as specific as possible.*

**4. How Could You Improve It?** *What are some changes that could make this device better? Are there common complaints, or clear issues that you might be able to address?*